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ISO Certification Initiatives Prove the Commitment to Sustainability

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Abstract. Malaysia's palm oil industry is growing in complexity and successively to succeed on the global level by accounts for about 36% of the word production of palm oil (Foreign Agricultural Service, 2012). But, Environmental, Health and Safety (EHS) issues are still problematic areas that need to be addressed by all parties concerned in this industry. In the olden days, unlike other sectors, palm oil industry was green in EHS management system. However, due to stringent in the legislative enforcement in the past few years, it has led some of the plantation companies to develop EHS management system, which are based on Environmental Management System (EMS) and Occupational Health and Safety Assessment Series (OHSAS), towards corporate sustainability. Sustainability is not about paying lip-service to the latest corporate buzzword; neither is it about superficially meeting minimum requirements for the sake of compliance. Rather, sustainability is a core value that lies at the heart of the companies' business conduct. In practical terms, this means strive to operate with due consideration for the interest of all stakeholders by minimizing any potential impact on the environment and making the health and safety of all workers a priority. This paper describes the certification of ISO 14001, OHSAS 18001 and MS 1722 in Genting Plantations Berhad (GENP) proved the commitment to sustainability by forming guiding principle on EHS management.

Keywords: palm oil industry; ISO 14001; OHSAS 18001; MS 1722; sustainability

Introduction

Malaysia is the second largest producer and exporter of palm oil in the world (Foreign Agricultural Service, 2012). However, in Malaysia, the palm oil industry contributes 83% of the single largest polluter; the situation is probably similar in other palm oil producing countries (Loretta Ojonoma, 2007). This means the proliferation of palm oil mills has actually bought heavy stress on the environment, especially palm oil mill effluent and air emissions. This is supported by statistic published by Department of Environment (DOE) where the court cases on offences committed under the Environmental Quality Act 1974 were in uptrend from year 2008 to 2010 (Figure 1).

On the other hand, the working population is a valuable asset to our nation especially palm oil industry, therefore we cannot afford to have many accidents which will eventually jeopardize our valued human resources. Workers involved in palm oil industry can be divided into two broad categories: those working in the plantations and those employed to work in the palm oil mill. The former are mainly the harvesters who harvest the fresh fruit bunches while the second category includes the workers employed to operate and maintain machineries in palm oil mills. Accidents involving both of these categories are not rare in Malaysia. Statistic of occupational accidents in the country published by Department of Occupational Safety and Health (DOSH) showed that the total numbers of accidents as well as the number of fatalities have not much improvement between 2008 and 2011 (Figure 2).

In view of EHS issues still remain an important matter in palm oil industry throughout the decade, government has in fact stringent in the legislative enforcement since recent years. It is at a time like this that the palm oil industry needs to consolidate and be proactive in meeting upcoming challenges. The palm oil industry also needs to meet challenges with more evidence of sustainable environmental and safety management system throughout the implementation.

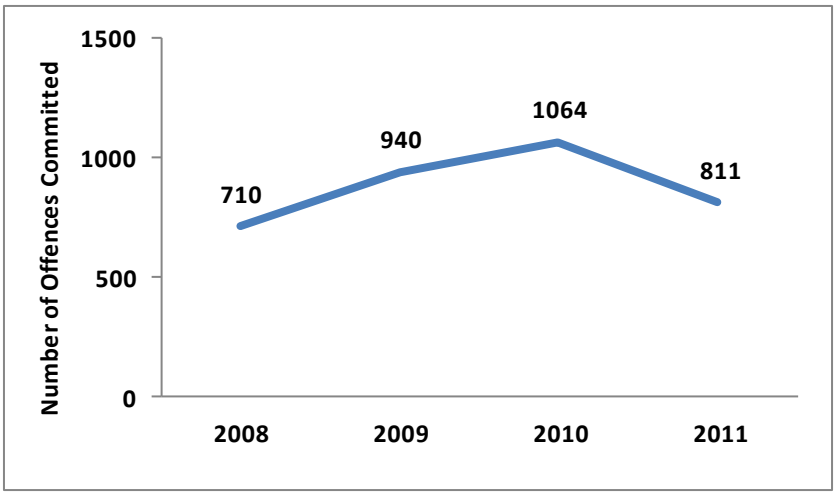


Figure 1: Department of Environment (DOE): Court cases on offences committed under the Environmental Quality Act 1974 from year 2008 - 2011

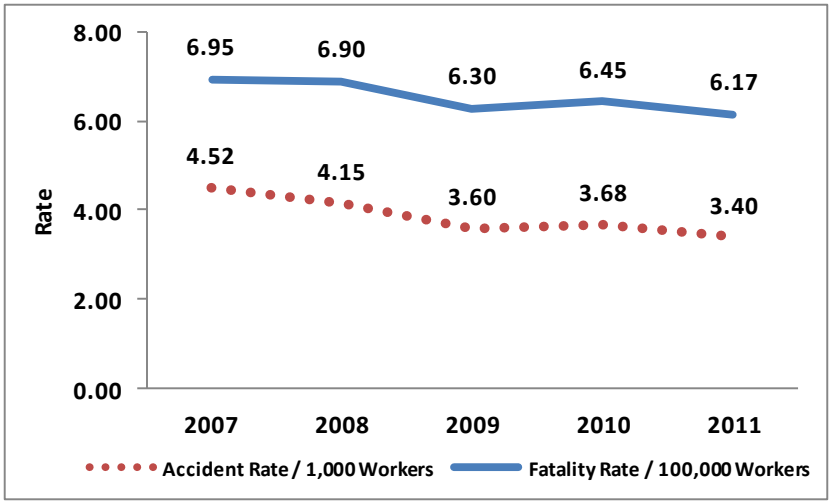


Figure 2: Department of Occupational Safety and Health (DOSH): National accident rate per 1,000 workers and fatality rate per 100,000 workers from year 2007 – 2011

This paper not only describes the certification of ISO 14001, OHSAS 18001 and MS 1722 in Genting Plantations Berhad proved the commitment to sustainability by forming guiding principle on EHS management system, but also demonstrates that the implementation of safety management can help to reduce the accident rate, especially fatal accident.

The ISO 14001 is an internationally-recognised standard for the establishment of an organisation's environmental management system. The standard requires the organisation to systematically identify and manage the environmental aspects and impacts resulting from its activities, products and or services. The implementation of ISO 14001 can improve an organisation's environmental performance (Department of Standards Malaysia, 2005). Conversely, The OHSAS 18001 and the MS 1722 standard enable an organisation to manage its occupational health and safety (OHS) risks and improve its OHS performance. The requirements of these standards are intended to address OHS for employees, temporary employees, contractors and other personnel on site rather than the safety of products and services. These standards provide a more effective method of protecting employees and others from workplace injuries and illnesses and demonstrate management

commitment in meeting OHS requirements (Department of Standards Malaysia, 2005, Department of Standards Malaysia, 2003 and OHSAS Project Group, 2007)

GENP's Response and Initiative

In Malaysia, legislation concerning EHS for palm oil industry comprises the following Acts and Regulations:

a) Environmental Quality Act 1974
b) Occupational Safety and Health Act 1994
c) Factories and Machineries Act 1967
d) Electricity Supply Act 1990
e) Fire Services Act 1994

Despite with all these Acts and Regulations in placed; there is always an argument on who should be responsible and accountable for pollution and accident prevention, employers, employees or relevant authorities. GENP's commitment to these areas, which are of paramount importance to the Group's overall sustainability agenda, was displayed clearly through important certification initiatives undertaken at the palm oil mill level. As part of the palm oil mill improvement efforts, GENP's palm oil mills embarked on a third party, independent verification exercise of their EHS Management System, guided by a road map began in year 2010. Under the standards subscribes, EHS management system composed of standards, procedures and monitoring arrangement that aim at promoting the EHS awareness at workplace and to protect the environment from pollution and public from accident shall be established and implemented.

Implementation of ISO 14001, OHSAS 18001 and MS 1722

The initiatives on certification of ISO 14001, OHSAS 18001 and MS 1722 started with gap analysis at GENP's oil mills to determine the status of existing EHS processes and controls in place. Recommendations were provided to bridge the gaps in that analysis. Having completed the gap analysis, a series of training were held to cover variety of topics, including ISO Awareness, Environmental Aspects and Impacts, Hazard Identification, Risk Assessment and Risk Control, Environmental Control Procedure, Safe Operating Procedure and Emergency Preparedness. This was followed by the challenging task of preparing documentations in accordance with the unique features of each palm oil mill and these have been structured into four levels as follows:

- Level 1 - Manual. This document gives an overview of the EHS Management Systems, includes the policies and all the non-operations procedures. It also outlines the structure of the documentation used in the EHS Management System.
- Level 2 – System Procedure. These documents specify principles, strategies and the general procedures of operations related actions (system process).
- Level 3 – Operations Procedure Documents. These documents specify in details the current practices or processes in any operations related action (core process).
- Level 4 – Records, forms and checklists. These documents further specify the manner of processes in an action. They also demonstrate conformance to specified EHS Management Systems.

The pyramid of EHS management system documentation is shown in Figure 3.

Figure 3: The pyramid of EHS management system documentation

Meanwhile, at the operation sites, proactive measures were taken to improve the environmental, safety and health performances. At the same time, EHS awareness was also actively promoted at the palm oil mills during daily morning muster and periodical training. Last stage of this project was to conduct internal auditing of EHS performance. The internal audits aimed to ensure compliance with ISO 14001, OHSAS 18001 and MS 1722 standards thereby ensuring the success of EHS programs through the implementation of the EHS management system. In additional, internal audit also served as a platform to identify EHS opportunities for continual improvement. After about one year implementation period, SIRIM QAS International Sdn Bhd, the country's leading and internationally-recognized certification, inspection and testing body, was engaged to carry out a series of audits, culminate in all palm oil mills successfully securing recommendation for certification of their Environmental, Health and Safety Management System under SIO 14001, OHSAS 18001 and MS 1722 by the end of January 2011. Implementation stages of ISO 14001, OHSAS 18001 and MS 1722 were summarized in Figure 4.

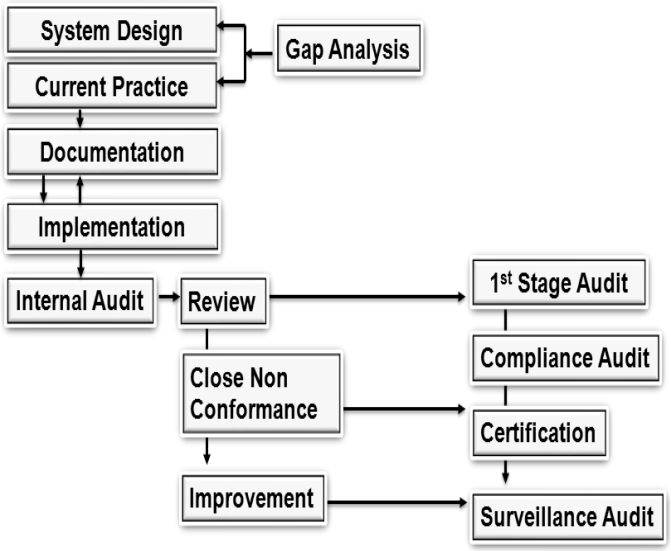


Figure 4: Road map for implementation of ISO 14001, OHSAS 18001 and MS 1722

Guiding Principle on Environmental, Health and Safety Management

ISO 14001, OHSAS 18001 and MS 1722 implemented by GENP is applicable company-wide and information is disseminated to all employees in order to ensure successful implementation. A generic environmental and safety management system has been established in order to sustain ISO 14001, OHSAS 18001 and MS 1722. In this management system, a number of important elements are specified and these are related to the setting of policy and creation of plans and organisational capacity to realise that policy (Plan), the analysis of impacts or hazards and effects leading to planning and implementation of those plans in order to manage the risks (Do) and the control on the effective performance of those steps (Check). A feedback loop is in placed to enable all the information gained are sent to management for their response (Act/Feedback). Further, there is an element extended out of the loop where the organisation has to establish an EHS management system with continual improvement activities in order to ensure the sustainability of ISO 14001, OHSAS 18001 and MS 1722 subscribes. This EHS management system is simplified in Figure 5.

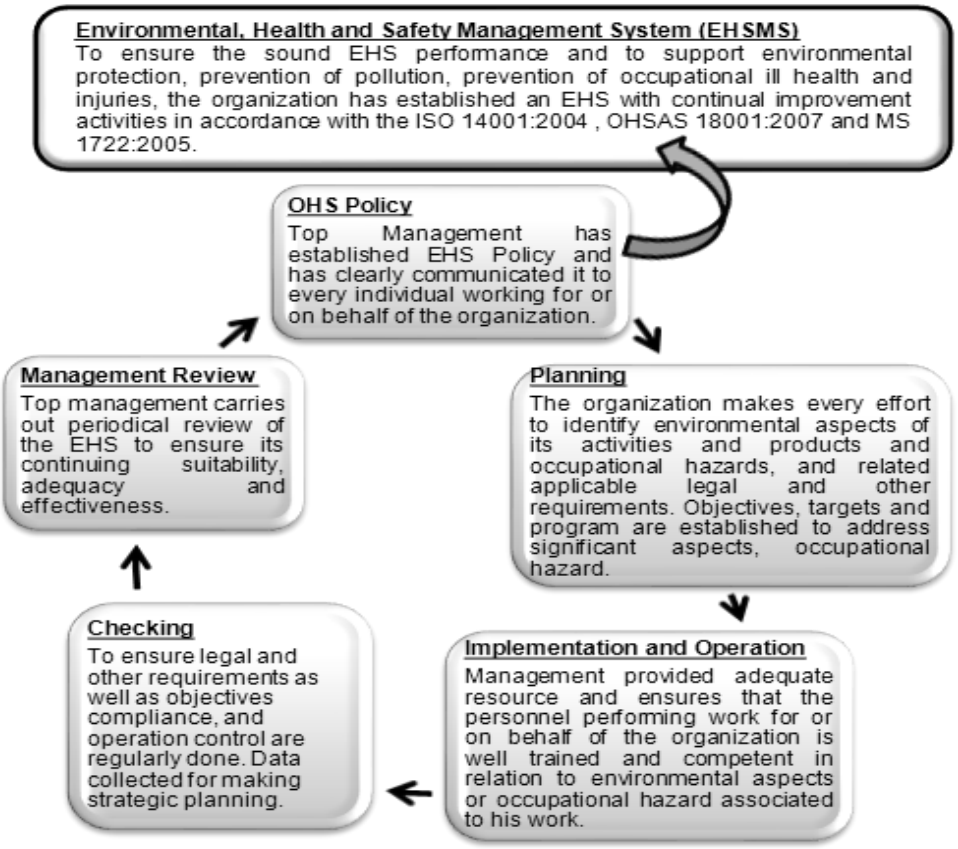


Figure 5: Generic EHS management system with elements of Plan-Do-Check-Act

Evolution of Working Culture

The systematic approach to environmental and safety management in EHSMS is not the end the journey as management system is a primarily rational invention, defined on paper in offices and capable of objective in audits. The next stage is to build generative environmental and safety culture. As the premier level in working cultures, generative environmental and safety culture is the situation where people carry out what they know has to be done not because they have to, but they want to. In other words, it is where the environmental and safe behavior is fully integrated into everything the organisation does (Patrick Hudson, 2001).

In order to promote generative environmental and safety culture, GENP encourages to have combination of a top-down commitment to improve and the realisation that the workforce is where that improvement has to take place. To have this premier environmental and safety culture implant, information is actively sought and responsibilities are shared among employees and employers. Furthermore, new ideas are welcomed in generative environmental and safety culture regardless it is from which level of employees, workers, staffs or executives.

Figure 6 shows the evolution of environmental and safety culture in GENP. Initial stage of safety culture at individual oil mill might vary from reactive to proactive due to different level of environmental and safety awareness. Nevertheless, all have successfully built and implanted premier level of generative environmental and safety culture after implementation of EHSMS.

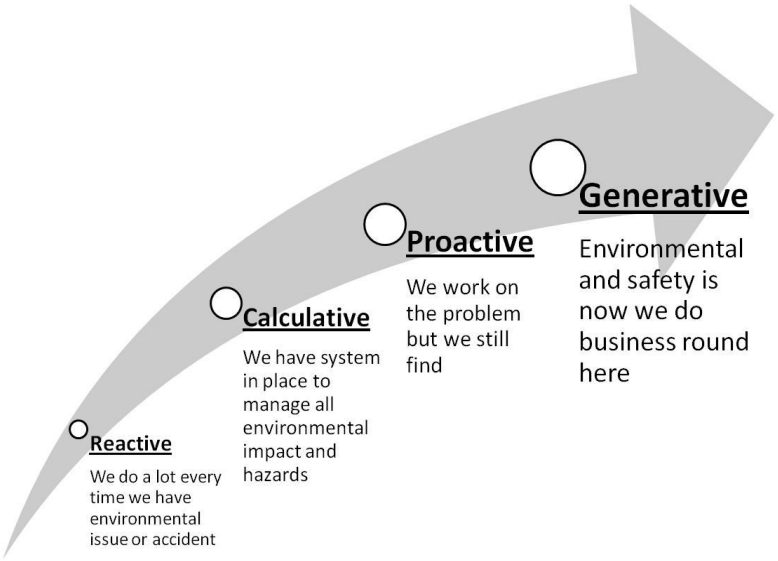


Figure 6: Patrick Hudson, 2001: Evolution of environmental and safety culture in GENP after implementing EHS management system

The effect of Implementing ISO 14001, OHSAS 18001 and MS 1722

The most important and measurable benefit resulting from EHS management system and evolution to generative environmental and safety culture is decrease in environmental pollution and impact, occupational accident rate and fatality rate. Table 1 summarizes the statistic of occupational accidents recorded during last five years in GENP oil mills.

Table1: Statistic of occupational accidents recorded during last five years in GENP oil mills

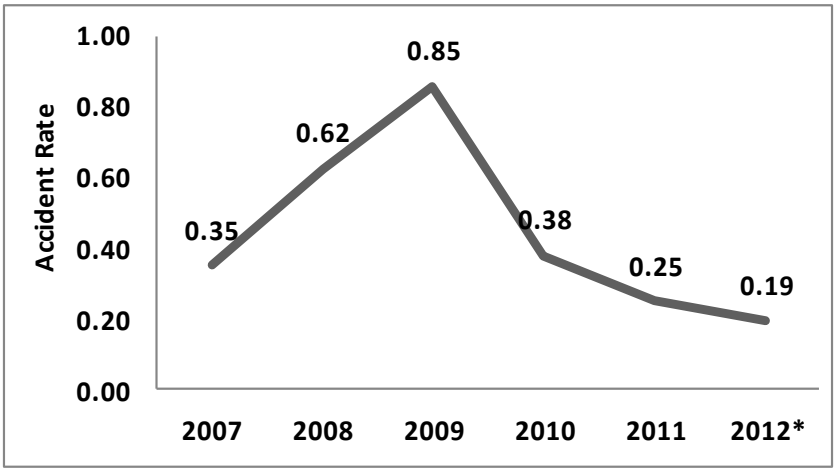
	2007	**2008**	**2009**	**2010**	**2011**	**2012***
Number of accidents	5	9	13	6	4	3
Number of fatalities	2	2	1	0	0	0
Accident rate / 100 workers	0.35	0.62	0.85	0.38	0.25	0.19
Fatality rate / 100 workers	0.14	0.14	0.07	0.00	0.00	0.00

* Remark: Data updated as at June 2012

Figure 7 clearly shows that there was significant decrease in accident rate since year 2009 after implementation of EHS Management System. Furthermore, the accident rate of 0.38 and 0.25 per 100 workers recorded in year 2010 and 2011 were greatly lower than national accident rate for the same period, 0.65 and 0.62 per 100 workers respectively. Figure 8 shows the fatality rate per 100 workers from year 2007 to 2012 (June). It was clearly shown that implementation of EHSMS proved the commitment to sustainability as GENP oil mills continuously recorded zero fatal accident since year 2009.

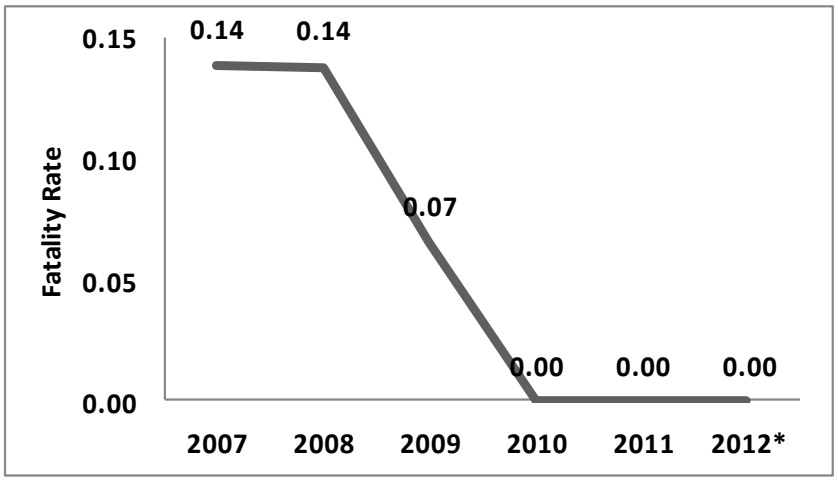
On the other hand, there was zero offence committed by GENP under the Environmental Quality Act 1974 since year 2009. This shows that

implementation of EHSMS proved the commitment to sustainability as GENP oil mills continuously comply to the Act.



* Remark: Data updated as at June 2012

Figure 7: Accident rate per 100 workers from year 2007 – 2012 (June Todate)



* Remark: Data updated as at June 2012

Figure 8: Fatality rate per 100 workers from year 2007 – 2012 (June)

Conclusion

Owing to increase in complexity of operations, the palm oil industry has become more challenging than ever before. Plantation companies are facing with the challenge of having to close monitor their business to minimize environmental pollution and impact and occupational hazards, while simultaneously trying to sustain profits in a competitive marketplace. In Malaysia, government agencies such as DOE and DOSH have done their part to promote environmental and safety awareness in the industry in order to reduce pollution and accidents rate in workplace. However, the key to proper environmental and safety execution is neither through strict guidelines nor stringent in enforcement, but through an effective environmental and safety management initiative, first approved by an organisation's top management, then integrated via specific environmental and safety management implementation tools and system, and finally by continuous follow up and monitoring to ensure quality and continuous improvement. In order to prove the commitment to sustainability, GENP has to ensure consistency in the adoption and implementation of the EHSMS among Group operating units as only those companies that take on aggressive environmental and safety management will prove the commitment to sustainability and guarantee the improvement of work conditions, the decrease of environmental pollution, occupational accident rate as well as lowering of the occupational fatality rate.

Acknowledgement

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